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10/773,394

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Shehzad T. Merchant

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EXAMINER

NGUYEN, MINH DIEU T

ART UNIT

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2137

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/773,394

Applicant(s)

MERCHANT ET AL.

Examiner

MINH DIEU NGUYEN

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 29-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to amendments

1. This office action is in response to the communication dated 4/28/07 with the amendments to claims 1-3, 8-11, 15, 17, 20-22 and 26-27.
2. Claims 1-28 are pending. Claims 29-38 are being withdrawn as being directed to a non-elected invention.

Response to arguments

3. Applicant's arguments dated 4/28/07 have been considered but are moot in view of the new ground(s) of rejection. The Applicant argues that according to Guy, the removal of operational program code from the device does not disable and/or render it inoperative, at least in part and the access point identification as held in the ID component does not meet properties 3 and 4 on the remarks, page 8. The Examiner respectfully disagrees, the sensitive information that is downloaded from a network component to a network device is the program code, not the access point identification. The program code is stored centrally on a server, from which it is downloaded to the access points via the LAN (Guy: 0007), where it is stored in volatile memory (Guy: 0015), as such the removal of program code disables the device as program code is erased when device is powered down or disconnected.

Claim Objections

4. The claim objections have been withdrawn based on the filed amendment.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-15, 19, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guy et al. (2005/0114473) in view of Rager et al. (5412721).

a) As to claims 3, 8 and 10, Guy discloses a method for protecting sensitive information in a network, comprising: storing the sensitive information at a network component; attaching a network device to the network, the network device lacking the sensitive information and being inoperative, at least in part, until the sensitive information is stored therein; downloading the sensitive information from the network component to the network device; storing the sensitive information in the network device so that the network device becomes operational on the network (i.e. the program code that is downloaded to access point 22 in the programming phase is held in a configuration file in a memory 56 of hub 26, at startup or reset of system 20, a central processing unit (CPU) 54 reads the configuration file from memory 56, and outputs the program code from the configuration file to interface 48 by writing successive words of the code to register 52, processor 50 converts the code words to an appropriate binary form for transmission over the LAN via PHY device 42, **Guy**: Fig. 2, 0059; when the access point starts up (typically at power-up or reset of the WLAN), program code is downloaded to the access point over the LAN, and is loaded directly

via the LAN interface into the FPGA. Once the code is loaded, the FPGA is ready to perform its communication functions in the WLAN. Upon power-up or reset of access point 22, hub 26 downloads generic, start-up program code to processor 44. The purpose of this start-up code is to cause the processor to read the value of component 45, and to report the value back via LAN 28 to hub 26. Based on this value, CPU 54 determines the version of operational program code to be downloaded subsequently to this particular access point, **Guy: 0004, 0075**; the access points include substantially no non-volatile memory for storing the program code, **Guy: 0040**); when the network device is disconnected from the network, erasing the sensitive information from the network device, thereby rendering the network device inoperative, at least in part (i.e. Automatic programming of processor 44 may occur not only when system 20 is initially switched on or reset, but also when a new access point 22 is connected to the system during operation. Some Ethernet PHY devices are capable of automatic link detection. In any case, when MAC processor 50 receives a link detection signal, it notifies CPU 54, which then downloads the appropriate program code to the new access point, **Guy: 0077**). As such, when the network device is not connected to the network (i.e. power lost or power is reset), the operational program code stored in no non-volatile memory is lost, hence the network device is not operational).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the use of disconnecting the network device (i.e. providing no power to the network device), erase the sensitive information from the network device,

thereby rendering the network device inoperative in the system of Guy so as to securely control the program code.

Guy discloses the sensitive information (i.e. program code), however it is silent on the capability of having the sensitive information is necessary for authorized network access.

Rager is relied on for teaching the sensitive information is necessary for authorized network access (i.e. the keying device 100 provides an encryption code and at least one key (Rager: col. 3, lines 12-14) to secure transmission device 101 (i.e. base station, Rager: col. 1, lines 11-15), where they are stored in a volatile memory device that allows the key information to be erased in the event that the transmission device loses power (i.e. disconnected from the network) (Rager: col. 1, lines 57-67, Fig. 3B).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the use of having the sensitive information is necessary for authorized network access in the system of Guy, as Rager teaches, so as to maintain security (Rager: col. 1, lines 65-66).

b) As to claim 1, this claim is hardware implementation of the method of claim 8, and is rejected by a similar rationale applied against claim 8.

c) As to claims 2 and 9, Guy discloses the sensitive information is selected from the group consisting of configuration information, a software image, and a combination of the foregoing (Guy: 0059).

d) As to claims 4 and 11, Guy discloses the network device includes a volatile memory for storing the sensitive information (**Guy**: 0040).

e) As to claims 5 and 12, Guy discloses the network component is a LAN switch (**Guy**: 0076).

f) As to claims 6, 13, 19 and 25, Guy discloses the network device is a wireless access point (**Guy**: Fig. 1, element 22).

g) As to claims 7 and 14, Guy discloses the network component is located in a secure environment (**Guy**: 0008).

h) As to claims 15 and 22, the majority of limitations are addressed in claim 8 above.

7. Claims 16-18 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guy et al. (2005/0114473) in view of Rager et al. (5,412,721) and further in view of Loison et al. (2003/0046529).

The combination of Guy and Rager discloses the device of claim 15, however it is silent on the capability of the downloading means includes a bootstrap program for downloading from the network an executable image, wherein the executable image permits the device to download the configuration information and storing the executable image in the memory.

Loison is relied on for the teaching of the downloading means includes a bootstrap program for downloading from the network an executable image, wherein the executable image permits the device to download the configuration information and

storing the executable image in the memory (i.e. The PXE protocol requires an appropriately configured BIOS and boot ROM which, when the computer is powered up, are effective to broadcast a general DISCOVER signal which is intended eventually to reach a local Intranet DHCP (Dynamic Host Configuration Protocol) server which, in turn, provides the client machine with a list of appropriate available boot servers. Using a low level protocol such as TFTP, the client machine then downloads the required boot image from an appropriate boot server and executes the boot image, **Loison**: 0006; upon receipt of an acceptable boot image 30, the image is transferred and/or copied to a volatile (e.g. RAM) part of the computer's system memory 32 where the boot image is executed, in the following way. Execution of the boot image 30 in a boot image execution environment 33 effects a further download of required operating software images such as an appropriate Operating System, **Loison**: 0085).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the use of the downloading means includes a bootstrap program for downloading from the network an executable image, wherein the executable image permits the device to download the configuration information and storing the executable image in the memory in the system of Guy and Rager, as Loison teaches, so as to effectively provide a executable boot image.

8. Claims 20-21 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guy et al. (2005/0114473) Rager et al. (5,412,721 and further in view of Nessett et al. (6,766,453).

a) As to claims 20 and 26, the combination of Guy and Rager discloses the device of claim 19, however it is silent on the capability of the configuration information includes security information for allowing end user devices to access the network through the wireless access point.

Nesset is relied on for the teaching of the configuration information includes security information for allowing end user devices to access the network through the wireless access point (**Nessett**: col. 2, lines 47-54, Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to employ the use of the configuration information includes security information for allowing end user devices to access the network through the wireless access point in the system of Guy and Rager, as Nesset teaches, so as to securely accessing WLAN network (**Nessett**: col. 2, lines 34-37).

b) As to claims 21 and 27-28, Nesset discloses the configuration information includes security information for allowing the device access to the network and means for authenticating the device on the network (**Nessett**: col. 2, lines 54-57; col. 6, lines 14-32).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu Nguyen whose telephone number is 571-272-3873.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2137

/Minh Dieu Nguyen/

Primary Examiner, Art Unit 2137